

Plaintiffs' Exhibit 123

Message

From: Tobias Maurer [tmaurer@google.com]
Sent: 3/16/2018 6:43:00 PM
To: Nirmal Jayaram [nirmaljayaram@google.com]; Ali Nasiri Amini [amini@google.com]
CC: Payam Shodjai [pshodjai@google.com]
Subject: Re: Header Bidding Observatory / Edition #3

+Ali

one additional point to surface is that elmo also is protecting against header bidding. we're leveraging cookies to manage budget in a way that ensures similar queries get similar bids, thus decreasing the amount of revenue pubs could make by inflating bid requests. impact of elmo is another 7.8% increase on AdX. so another 220M shifting.

On Fri, Mar 16, 2018 at 11:20 AM, Nirmal Jayaram <nirmaljayaram@google.com> wrote:
 In the past we have tried running experiments where we turned off DBM buying on known header bidding requests. Interestingly, we didn't win these impressions back on Adx, possibly due to publisher floors. Publishers tend to have higher floors of Adx, which is why DBM ends up winning on other exchanges (as Goody has shown in the past even for EB). This is one big problem for the Adx team to try fixing so that more of the DBM buying will switch to Adx (and we can possibly do some more supply path optimization on header bidding requests).

On Fri, Mar 16, 2018 at 10:40 AM, Tobias Maurer <tmaurer@google.com> wrote:
 (adding Nirmal in case he has additional points)

+1 to the problem not being DBM. HB exists as a reaction for publishers to them feeling that DFP's enhanced dynamic allocation does not allow for real time competition with network buyers (non-google buyers). HB is working for many publishers as it generates them more revenue by leveraging a system that DFP designed to manage reservation demand to instead call exchanges with key/value pairs.

We already flagged concerns w/ HB back in 2016. The discussion back then led to some sensible changes in EB, the inception of Demand Product as well as multiple initiatives in DBM to combat the effects of header bidding, such as first price auction protection (all HB is by definition first price). The combined impact of these were to shift ~500M spend inventory. But the data shared here seems to indicate EB might not be working as a strategy to combat HB.

As you mentioned, we can be more aggressive at our bidding strategy up to no longer buying cross exchange but this will come at a price. TDD, AZN, FB and others will NOT have any reasons to not buy HB inventory. And as such, DBM would lock itself out of an auction that all these guys have access to and this auction will have DFP originated inventory that we no longer can buy.

The question I repeatedly keep asking is how big of an issue this is. How much HB inventory is currently DFP originated and sold in a way that DBM is locked out? It might be interesting to explore if DFP should consider changing his terms and no longer allow/facilitate these calls. My personal opinion and you should edit this before sending is that the way DFP works is outdated.

On Fri, Mar 16, 2018 at 10:22 AM, Payam Shodjai <pshodjai@google.com> wrote:
 Agree, this is broken. The problem isn't so much that DBM is buying HB inventory -- the problem is that HB exists :) Since DBM is the largest buyer on many exchanges, we are also the largest buyer of HB inventory,

because there's no way for us to discriminate HB vs non-HB inventory. So for DBM to stop buying HB inventory would mean DBM stops buying on 3P exchanges. This is something we can certainly discuss.

We should have a deep dive with JB on our response to HB. It has been a multi-pronged effort, which includes two major projects:

- Exchange Bidding (EB)
- Demand Product (DP)

I don't think these initiative are sufficient. EB just stems the bleeding. And DP is going after the head-of-the-head, which wasn't on AdX to being with.

On Fri, Mar 16, 2018 at 12:59 PM Brad Bender <bradbender@google.com> wrote:

Payam - this seems pretty broken. Is there anything we can do to help with this situation in the short-term?

Brad

----- Forwarded message -----

From: **Jonathan Bellack** <jbellaack@google.com>

Date: Fri, Mar 16, 2018 at 7:35 AM

Subject: Fwd: Header Bidding Observatory / Edition #3

To: Brad Bender <bradbender@google.com>

FYI. I think you know this, but I am told regularly that DBM is the top buyer on every other exchange, so a huge chunk of publisher HB revenue is Google demand going outside our ecosystem and then coming back in via 3PE/HB.

----- Forwarded message -----

From: **Nicolas Baquié** <nbaquie@google.com>

Date: Fri, Mar 16, 2018 at 6:05 AM

Subject: Header Bidding Observatory / Edition #3

To: sell-side-gsl <sell-side-gsl@google.com>, sellside-pm <sellside-pm@google.com>

Cc: Chris LaSala <chrisl@google.com>, Jonathan Bellack <jbellaack@google.com>, David Goodman <davidgoodman@google.com>, Justine Rivera <justiner@google.com>, Jim Giles <jimgiles@google.com>, Nitish Korula <nitish@google.com>, fribeiro <fribeiro@google.com>, Joëlle Skaf <jskaf@google.com>, Beng Hee Eu <ahbeng@google.com>, Grégoire Cachet <gregoire@google.com>, Jelani Gould-Bailey <jelani@google.com>, Debbie Gelb <dcg@google.com>, Thomas Schreiber <tschreiber@google.com>, hbobservatory@google.com

INTERNAL ONLY

Dear Sell-Side GSL & PM teams,

The Header Bidding Observatory team has been working on several fronts, one of which is to increase general visibility of header bidding evolution over time. Thanks to all of you who gave us

feedback and guidance during the past few months. We're glad to share with you the latest updates below.

New Header Bidding Dashboard

We are happy to announce that the HB Dashboard will be available internally from today for everyone working on sell-side. Please check out the HB Dashboard at go/hbmonitor. This dashboard is intended to make it easy for anyone working on the sell-side to periodically check and follow HB adoption and evolution from a pod to a global level in a handful perspectives.

New HB Observatory deck

Following the second edition of the Header Bidding Observatory released last year, we're happy to share with you the Edition #3. Please find below a summary of the key findings.

Executive Summary: (DRX data, LPS + OPG T1, DAOF only)

- **HB adoption** continues to **grow** globally, now reaching **50%** and is projected to reach **66%** by EOY 2018. **HB impression growth** is mainly driven by **NA** (+15B YoY) & **EMEA** (+10B YoY).
- **Non-HB 3rd party indirect** keeps **losing ground** to AdX, Exchange Bidding & Header Bidding. **HB impressions grow faster** than AdX impressions in percentage, but **AdX still grows more** than **HB** in terms of **absolute volume**.
- Each HB competitor is searching for **differentiation** (pricing/fees, supply path optimization & server side wrappers) but globally **Amazon** has experienced the **fastest HB growth** in the past 12 months. Also the HB market became more **fragmented** in H2 2017 with **Rubicon** & **OpenX** losing share.
- Some **HB implementation** in DFP can be **sub-optimal**, mainly due to low AdX eligibility, inadequate HB LIs Reservation Type, or too wide rate granularity. In order to **optimize** these implementation and ensure **fair competition** with **AdX**, we sent 50+ proactive (representing **\$49m+** uplift opportunity) and 120+ ad hoc HB reports to AMs in Q4 2017 & Q1 2018. This proactive outreach increased AdX eligibility by **4%** points and AdX win rate by **3%** points for the targeted accounts.
- We also launched a new service with GPSE providing **proactive HB detection** surfacing publishers who recently enabled HB for the first time to their account managers.

Next steps

- We want to understand HB in more details by conducting analysis of latency issues, hybrid monetization (HB Client & Server side + Exchange Bidding), SafeFrame issues caused by HB and impact on AdX metrics over time after HB implementation.

We hope these insights will be useful and we'd like to receive your feedback! Please send any comments, questions, suggestions, compliments or flowers to hbobservatory@google.com.

Best,
Nicolas, on behalf of the HB Observatory team

The Project team: [Bruno Joia](#), [Ganesh Balachandran](#), [Jack Coleman](#), [Nancy Yoo](#), [Nicolas Baquié](#), [Rasmus Pil](#), [Sam Morse](#)



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There's a perfect ad for everyone.



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